



Mark Scheme (Results)

Summer 2025

Pearson Edexcel GCSE
In Geography B (1GB0)
Paper 1

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Hazardous Earth

Question number	Indicative Content Plot the following information on Figure1.	Mark																																																
1(a)(i)	Plot should touch this line. Greenhouse gas emissions (billion tonnes) Greenhouse gas emissions (billion tonnes) <table border="1"><caption>Estimated data from Figure 1</caption><thead><tr><th>Year</th><th>Black Line (billion tonnes)</th><th>Red Dotted Line (billion tonnes)</th><th>Blue Solid Line (billion tonnes)</th></tr></thead><tbody><tr><td>2000</td><td>41</td><td>5</td><td>7</td></tr><tr><td>2002</td><td>44</td><td>6</td><td>7</td></tr><tr><td>2004</td><td>45</td><td>7</td><td>7</td></tr><tr><td>2006</td><td>47</td><td>8</td><td>7</td></tr><tr><td>2008</td><td>48</td><td>9</td><td>7</td></tr><tr><td>2010</td><td>50</td><td>10</td><td>6</td></tr><tr><td>2012</td><td>52</td><td>11</td><td>6</td></tr><tr><td>2014</td><td>53</td><td>12</td><td>6</td></tr><tr><td>2016</td><td>52</td><td>11</td><td>6</td></tr><tr><td>2018</td><td>54</td><td>12</td><td>6</td></tr><tr><td>2020</td><td>56</td><td>14</td><td>5</td></tr></tbody></table>	Year	Black Line (billion tonnes)	Red Dotted Line (billion tonnes)	Blue Solid Line (billion tonnes)	2000	41	5	7	2002	44	6	7	2004	45	7	7	2006	47	8	7	2008	48	9	7	2010	50	10	6	2012	52	11	6	2014	53	12	6	2016	52	11	6	2018	54	12	6	2020	56	14	5	1
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Question Number	Indicative Content Identify the period in which greenhouse gas emissions from China became higher than those from the USA.	Mark
1(a)(ii)	B - 2003-2005 All other answers are incorrect.	1

Question Number	Indicative Content Explain one way that farming can increase greenhouse gas emissions.	Mark
1(b)	Award 1 mark for identifying a way farming can increase greenhouse gas emissions and a further mark for explanation. The explanation may take the form of identifying a greenhouse gas released by farming practices (as seen in examples 1,2,3, 6 and 7) or by explaining why the activity is taking place (as seen in example 5). • Rice paddies (1) cause methane to be released (1). • Livestock farming / cattle (1) release methane (1). • The use of fertilisers (1) releases large amounts of nitrous oxides (1) • Deforestation of farmland (1) reduces the ability of trees to absorb carbon dioxide (1). • Deforestation is taking place (1) to make way for palm oil plantations (1). • Increased usage of machinery (1) release carbon dioxide / nitrous oxides (1). • Ploughing of farmland (1) releases carbon dioxide from the soil (1). Accept any other appropriate response.	2

Question Number	Indicative Content Explain two pieces of evidence for natural climate change.	Mark
1(c)	Allow 1 mark for identifying a source of evidence for climate change and a further mark for explanation of that reason. • Ice cores (1) show trapped gases (CO₂ bubbles) from thousands of years ago (1) • Tree rings (1) show the show past growing conditions (1). • Historical records (1) can describe weather patterns / frost fairs on the Thames (1). • Ice cap melting (1) as a consequence of warming temperatures (1). • Volcanic activity (1) which caused ash to be ejected into the atmosphere reducing temperatures (1). • Sunspot activity (1) increased sunspot activity is associated with increased temperatures (1). • Asteroid collisions (1) result in dust being kicked up into the atmosphere, blocking the sun (1). • Old documents / paintings (1) can describe weather conditions (1). • Fossils (1) of animals from the ice age (past climates) have been found (1). • Glaciated valleys / u-shaped valleys (1) show evidence of glaciation (1). • Pollen analysis (1) preserved in peat / sediment show past plant species (1). Accept any other appropriate response.	4

Question Number	Indicative Content	Mark
	Identify the diameter of the hurricane, shown by the line A-B, on Figure 2.	
1(d)(i)	Line A-B is over 7cms. Using the scale this equates to a diameter of over 700km. D 701-800 km (1) All other answers are incorrect.	1

Question Number	Indicative Content	Mark
	Identify the feature labelled X on Figure 2.	
1(d)(ii)	Award 1 mark for the identification of feature X. • Eye (1) • Eye of the storm (1) • Eye wall (1) • Storm eye (1) All other answers are incorrect.	1

Question Number	Indicative Content	Mark
	Explain one impact of hurricanes on coastal areas.	
1(d)(iii)	Award 1 mark for identifying an impact of hurricanes on coastal areas and a further mark for explanation of that impact. • Storm surges (1) can flood coastal areas (1). • Coastal flooding (1) can kill people (1). • A lot of money is spent on repairs (1) following coastal flooding (1). • Strong winds (1) can destroy buildings / uproot trees (1). • Disruption to power lines (1) caused by strong winds (1). • Flooded coastal areas (1) result in reduced income from tourism (1). • Increased coastal erosion (1) due to strong waves / storm surges (1) Allow any other appropriate response.	2

Question Number	Indicative Content	Mark
	Explain one way countries can prepare for tropical cyclones, such as the hurricane shown in Figure 2.	
1(d)(iv)	Award 1 mark identifying a way countries can prepare for tropical cyclones and up to two further marks for explanation of that reason. • Early warning systems (1) enable people to be made aware of an approaching tropical storm (1) enabling them to move to safety before the storm arrives (1).	3

	● Evacuation plans (1) ensure the population knows what to do before the arrival of a storm (1) ensuring they are able to move to safety (1). ● Reinforcing coastal defences / building levees / planting mangroves (1) reduces the impact from storm surges (1) resulting in less coastal flooding (1). ● Building cyclone shelters (1) ensures people have a safe place to go to during the storm (1) reducing their risk from coastal flooding (1). ● Reinforcing infrastructure / boarding up windows (1) reduces the likelihood of damage to buildings (1) improving their ability to withstand strong winds / coastal flooding (1). Allow any other appropriate response.	
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Question Number	Indicative Content Identify this type of plate boundary.	Mark
1(e)(i)	D - divergent A - Collision is incorrect as the plates are not moving towards each other. B - Conservative is incorrect as the plates are not sliding past each other. C - Convergent is incorrect as the plates are not moving towards each other. All other answers are incorrect	1

Question Number	Indicative Content Explain one reason for plate movement.	Mark
1(e)(ii)	Award 1 mark for identifying a reason for plate movement and a further mark for explaining how this process operates (as in examples 1 and 3) or how it causes plates to move (examples 2 and 4). ● Convection currents (1) result from rising magma in the mantle (1) ● Convection currents (1) resulting from heat generated in the core pull the plates (1). ● Slab pull (1) results from dense oceanic crust sinking into the mantle (1). ● Ridge push (1) magma cools at constructive boundaries creating new crust pushing the plates apart (1). Accept any other appropriate response.	2

Question Number	Indicative Content Explain two reasons why volcanoes have different characteristics.	Mark
1(f)	The basic reasons why volcanoes have different characteristics are as follows: lava type, explosivity, frequency of eruption. Award 1 mark for identifying a characteristic of volcanoes which can differ such as lava / magma type, nature of eruption, plate boundary type (tectonic setting -n as shown in the last two examples below), shape and a further mark for explanation. There is no requirement to mention different types of volcanoes as shown in example 2. • Shield volcanoes have gentle slopes (1) as the lava is more runny / less viscous (1). • Some volcanoes are more explosive (1) as their magma has a high gas content / contains more carbon dioxide (1). • Shield volcanoes tend to cover a greater area (1) this is because their lava travels long distances before cooling (1). • Composite / stratovolcanoes are more explosive (1) due to the magma having a higher gas content / containing more carbon dioxide (1). • Shield volcanoes have more frequent eruptions (1) as their lava is basaltic and under less pressure (1). • Shield volcanoes have hotter lava (1) due to the lava's chemical composition (1). • Shield volcanoes are found at divergent plate boundaries (1). Here, the magma is under less pressure (1). • Composite volcanoes are found at convergent / destructive plate boundaries (1), here the magma has a greater silica content (1). Accept any other appropriate response. NB Do not accept the words shield, composite in isolation.	4

Question Number	Indicative Content You have studied the management of either volcanic or earthquake hazards. Evaluate the effectiveness of the management of a volcanic or earthquake hazard in a named developed country.	Mark
1(g)	AO2 (4 marks) / AO3 (4 marks) AO2 (4 marks) • Countries at a higher level of development implement a range of measures to prepare for tectonic hazards. • Earthquake preparation strategies include earthquake drills as occurs on 1st September each year in Japan and the construction of aseismic buildings such as the Transamerica pyramid in San Francisco. • Developed countries often rapidly implement immediate responses to tectonic hazards such as the mobilisation of emergency services. • Given their level of economic development, developed nations are able to finance long-term rebuilding projects, provide economic aid and mental health support. • On occasions such as the Japanese Tohoku earthquake in 2011, the magnitude of the hazard was so great that not even the most effective preparation strategies were adequate to protect the population.	8

- The 1991 Mount Unzen eruption in Japan was larger and more dangerous than had been expected with lava flows reaching areas that were previously considered to be safe.
- The link between overall impact and level of development is not always well-defined.
- In the case of the Japanese tsunami, the impacts were extremely severe. A combination of factors such as the large magnitude, densely populated coastline and proximity to the epicentre combined in a catastrophic manner.
- Impacts can be measured in different ways and can be either economic or social.
- Whereas tectonic hazards in developing countries often have more serious social impacts, in developed countries, the economic impact can be very significant.
- The level of development is not the only factor contributing to the severity of impacts. The proximity to the hazard, in the case of earthquakes, the depth of the focus, in the case of tsunamis, the topography of the coastline can also be important factors influencing impact.

AO3 (4 marks)

- Judgement regarding the effectiveness of the preparation. For example, Japan was well prepared for the 2011 earthquake as a result of its strict building codes, however, the tsunami overwhelmed existing coastal defences which were not built higher enough.
- Judgement regarding the speed of the government response. For example, over 10,000 residents were evacuated from Mount Unzen high-risk areas prior to the 1991 eruption.
- Judgement regarding the effectiveness of restoring basic needs for the population.
 - Judgement regarding the effectiveness of disaster management procedures e.g. The population in the immediate vicinity of the Fukushima nuclear power plant was quickly evacuated although evacuation zones were unclear and some residents received conflicting instructions.
- Judgement regarding the effectiveness of methods of volcanic monitoring. For example, Vesuvius is closely monitored by the Vesuvius Observatory which tracks seismic activity and gas emissions.
- Judgement about the effectiveness of building controls to reduce damage from an earthquake referencing aseismic buildings or lava diversion channels.
- Judgement about the effectiveness/ineffectiveness of other response strategies put in place.

Level	Mark	Descriptor
	0	• No acceptable response
Level 1	1-3	• Demonstrates isolated elements of understanding of concepts and the interrelationships of places, environments and processes. (AO2) • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)
Level 2	4-6	• Demonstrates elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)
Level 3	7-8	• Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provides logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout (AO3)

Development Dynamics

Question Number	Indicative Content	Mark
	Identify the continent with an increase of 32 years in life expectancy between 1950 and 2050 (projected).	
2(a)(i)	D - South America. In South America, the life expectancy in 1950 was 48.6 and it is projected to rise to 80.6, an increase of 32 years. All other answers are incorrect. A - Africa has a projected increase of 30.7 years. B - Asia has a projected increase of 37.5 years. C - Europe has a projected increase of 21 years.	1

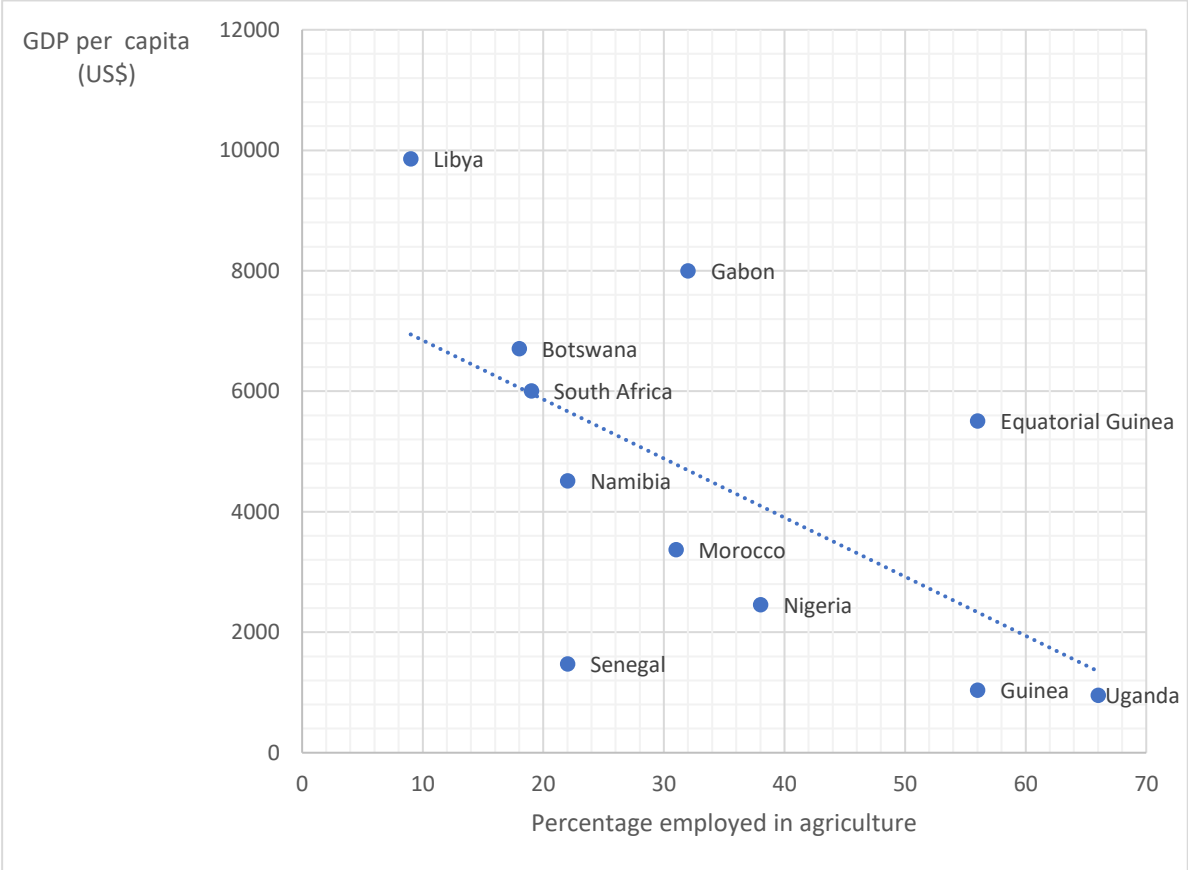
Question Number	Indicative Content	Mark
	The data in Figure 4 includes changes to the life expectancy for Africa in 1950, 2000 and 2050, presented as a bar chart. Describe how a line graph could be used to show the same data for Africa. You may use a diagram to help your answer.	
2(a)(ii)	Award 1 mark for the description of the x axis and a further mark for description of the y-axis. A mark can also be awarded for a line drawn on a line graph illustrating an increase in life expectancy. No credit should be given to axis if a bar chart or similar has been drawn. • A line graph could have years on the x-axis (1) and life expectancy on the y-axis (1). Accept any other appropriate response.	2

Question Number	Indicative Content	Mark
	Explain one economic reason why life expectancy has increased.	
2(a)(iii)	Award 1 mark for identification of an economic reason why life expectancy increases and a further mark for explanation. • Governments investing in hospitals (1) allows more illnesses to be treated (1). • Higher income levels (1) mean people can afford better food / housing / healthcare (1). • Improved incomes / better paid jobs (1) enable people to afford clean water / medical care (1). • Improved incomes (1) enable people to purchase enough food (1) • Improved sanitation systems (1) reduce the risk of disease (1). • More hospitals (1) enable people to have access to better medical care (1). Accept any other appropriate response.	2

Question Number	Indicative Content	Mark
	In 2000, 4% of the population in China were males aged 5-9 years. Plot this information to complete Figure 5a.	
2(b)(i)	Award one mark for correctly adding a bar for the male 5-9 population as shown below. The data plot should touch the 4% line.	1

Question Number	Indicative Content Suggest one reason for the decrease in the percentage of children (0-14 years) between 2000 and 2024.	Mark
2(b)(ii)	Award 1 mark for identifying a reason why the percentage population of children in the 0-14 age group has decreased between 2000 and 2024 and further marks for explanation of this change up to a maximum of three marks. • There could be a declining fertility rate / birth rate (1) due to larger percentage of women having careers (1) and delaying the birth of their first child (1). • In cities children are more expensive to raise (1) due to costs from schooling / housing (1) resulting in a declining fertility rate (1) • Contraception many become more widely available (1) due to increasing incomes (1) resulting in a lower birth rate (1). • Improvements to children's health (1) and reduced infant mortality (1) can reduce fertility rates (1) • The cost of childcare (1) may result in families having fewer children (1) leading to a lower birth rate (1). • The one child policy in China (1) has decreased the number of people of a childbearing age (1) resulting in a decreased birth rate (1). • As there are a greater percentage of people in the older age groups (1) there will be a smaller percentage of people of child bearing age (1). NB The explanation given for the changes can be generalised. No direct knowledge of population policies in China is expected although can be credited as in example 6. Accept any other appropriate response.	3

Question Number	Indicative Content Plot the following information for Gabon on Figure 6.	Mark																																				
2(c)(i)	Award 1 mark for correctly plotting the data for Gabon as shown below. Note: there is no requirement for candidates to label Gabon, the plot is what is credited. Plot should be touching the intersection of the 32% employed in agriculture and GDP (US\$)8000 per capita line as shown here <table border="1"><thead><tr><th>Country</th><th>Percentage employed in agriculture</th><th>GDP per capita (US\$)</th></tr></thead><tbody><tr><td>Libya</td><td>10</td><td>10000</td></tr><tr><td>Botswana</td><td>18</td><td>6800</td></tr><tr><td>South Africa</td><td>20</td><td>6000</td></tr><tr><td>Namibia</td><td>22</td><td>4500</td></tr><tr><td>Morocco</td><td>30</td><td>3500</td></tr><tr><td>Nigeria</td><td>38</td><td>2500</td></tr><tr><td>Senegal</td><td>22</td><td>1500</td></tr><tr><td>Equatorial Guinea</td><td>58</td><td>5500</td></tr><tr><td>Guinea</td><td>55</td><td>1000</td></tr><tr><td>Uganda</td><td>65</td><td>1000</td></tr><tr><td>Gabon</td><td>32</td><td>8000</td></tr></tbody></table>	Country	Percentage employed in agriculture	GDP per capita (US\$)	Libya	10	10000	Botswana	18	6800	South Africa	20	6000	Namibia	22	4500	Morocco	30	3500	Nigeria	38	2500	Senegal	22	1500	Equatorial Guinea	58	5500	Guinea	55	1000	Uganda	65	1000	Gabon	32	8000	1
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Question Number	Indicative Content Draw a line of best fit on Figure 6.	Mark																																				
2(c)(ii)	Award 1 mark for correctly drawing a line of best fit allowing between 4-6 plots either side of the line as shown in the example below. Note: The line of best fit must be straight and be showing a negative correlation.  The scatter plot displays the relationship between the percentage of the population employed in agriculture (x-axis) and GDP per capita in US dollars (y-axis). The x-axis ranges from 0 to 70 with major grid lines every 10 units and minor grid lines every 2 units. The y-axis ranges from 0 to 12,000 with major grid lines every 2,000 units and minor grid lines every 400 units. There are 11 data points representing different countries. A dotted line of best fit is drawn, showing a clear negative correlation: as the percentage employed in agriculture increases, the GDP per capita tends to decrease. The line passes through approximately (10, 7000) and (65, 1000). <table border="1"><thead><tr><th>Country</th><th>Percentage employed in agriculture</th><th>GDP per capita (US\$)</th></tr></thead><tbody><tr><td>Libya</td><td>10</td><td>9800</td></tr><tr><td>Gabon</td><td>32</td><td>8000</td></tr><tr><td>Botswana</td><td>18</td><td>6800</td></tr><tr><td>South Africa</td><td>20</td><td>6000</td></tr><tr><td>Namibia</td><td>22</td><td>4500</td></tr><tr><td>Morocco</td><td>32</td><td>3500</td></tr><tr><td>Nigeria</td><td>38</td><td>2500</td></tr><tr><td>Senegal</td><td>22</td><td>1500</td></tr><tr><td>Equatorial Guinea</td><td>58</td><td>5500</td></tr><tr><td>Guinea</td><td>58</td><td>1000</td></tr><tr><td>Uganda</td><td>65</td><td>800</td></tr></tbody></table>	Country	Percentage employed in agriculture	GDP per capita (US\$)	Libya	10	9800	Gabon	32	8000	Botswana	18	6800	South Africa	20	6000	Namibia	22	4500	Morocco	32	3500	Nigeria	38	2500	Senegal	22	1500	Equatorial Guinea	58	5500	Guinea	58	1000	Uganda	65	800	1
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Question Number	Indicative Content Describe the relationship between the % employed in agriculture and GDP per capita shown on Figure 6. You must use data in your answer.	Mark
2(c)(iii)	Award 1 mark for identifying a negative relationship between the percentage employed in agriculture and the GDP per capita. 2 marks can be awarded for using data to exemplify the relationship and or/highlighting anomalies. Data can be referenced in a written format as shown below in the first example. • There is a negative relationship (1). Libya has the highest GDP per capita and the lowest percentage employed in agriculture (1). Uganda has the lowest GDP per capita and has the highest in terms of percentage employed in agriculture (1). • Uganda has the highest percentage employed in agriculture and a low GDP per capita (1). Senegal is an anomaly (1). As GDP per capita goes up, percentage employed in agriculture goes down (1). • As the GDP per capita goes up, the percentage employed in agriculture goes down (1). Libya has GNI per capita of around 10,000 US\$ and 9% employed in agriculture (1). Senegal / Equatorial Guinea is an anomaly to the general relationship (1). • As GDP per capita goes up, percentage employed in agriculture goes down (1). Uganda has the highest percentage employed in agriculture and a low GDP per capita (1). Senegal is an anomaly (1). • There is a negative correlation (1). Libya has only 9% employed in agriculture and has the highest GDP (1). The next lowest percentage employed in agriculture is Botswana which has double the % employed in agriculture compared to Libya (1). Note: Credit data manipulation as is evident in the last bullet point. Accept any other appropriate response.	3

Question Number	Indicative Content Explain two reasons why colonialism has led to global inequalities.	Mark
2(d)	Award 1 for identifying a reason why colonialism has led to global inequalities and a further mark for explanation. • Colonial powers took natural resources from colonies (1) which made European countries richer while slowing the development of colonies (1). • Colonies were made to sell raw materials cheaply (1) whilst buying expensive manufactured goods from colonial powers (1). • Colonial powers exploited colonies for raw materials / labour (1) which helped them industrialise while colonies remained underdeveloped (1). • European countries built transport / industry for their own benefit (1) not for development of the local area (1). • Former colonial powers control poorer countries through debt / trade (1) so poorer countries stay poor and cannot develop properly (1). • Poorer countries have been encouraged to grow cash crops (1) which earn low prices (1). • TNC's from former colonies continue to operate in former colonies (1). They exploit people by paying them very low wages. (1) Accept any other appropriate response.	4

Question Number	Indicative Content Explain one advantage and one disadvantage of investment by transnational corporations (TNCs) to increase the level of development in countries.	Mark
2(e)	Award 1 mark for identifying an advantage brought about by TNC investment and a further mark for explanation. Award 1 mark for identifying a disadvantage resulting from TNC investment and a further mark for explanation. Advantage: • TNCs creates jobs in the host country (1) which lowers unemployment rates (1). • TNCs generate tax revenues for the host country (1) this money can be spent on improving public services (1). • TNC investment often results in improvements in local infrastructure (1). This can lead to a multiplier effect, attracting other industries to invest in the area (1).	4

	Disadvantage: • TNC investment provides competition for local firms (1) which can lead to their closure (1). • TNCs can cause pollution (1) having a negative impact on health (1). • Sweatshop / poor working conditions (1) can have a negative impact on people's health (1). Accept any other appropriate response.	
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Question Number	Indicative Content You have studied how one of the world's emerging countries is developing. Assess the importance of globalisation in the development of your chosen emerging country.	Mark
2(f)	A02 4 marks / A03 4 marks A02 4 marks • Globalisation is the increasing connectedness of countries through the flow of money, people, goods and information. • The process of globalisation leads to a shrinking world where places becoming increasingly interconnected with one another. • Global trade has expanded significantly as a consequence of globalisation with companies being able to operate in several countries. Investment by Transnational Corporations (TNCs) has helped boost the GDP and contribute to rising wage levels in several emerging countries. • Developments in transport such as containerisation and in technology such as the growth of the internet played a crucial role in the development of many emerging countries. • Hong Kong is one of the world's most significant financial centres and is home to one of the world's busiest container ports. The level of investment here has resulted in Hong Kong having the highest GNI per capita of any administrative region in China. • The development of the oil fields has led to investment from energy multinationals in coastal Nigeria leading to Lagos having the largest GNI per capita of any administrative region in the country. In contrast, the region of Kebbi relies primarily on agriculture for its economic output and is subsequently less attractive to investment. • Whereas the state of Maharashtra is the largest contributor to the Indian economy, with the state capital Mumbai, being an important economic centre, there are considerably poorer inland areas such as Bihar which do not benefit from coastal access and therefore are less exposed to globalisation.	8

	● Large global companies such as BT and Microsoft have outsourced work to Bangalore creating thousands of jobs in the service sector, creating employment and boosting incomes. ● In Brazil, global events such as the World Cup and the Olympics have boosted tourism and investment creating thousands of jobs. ● The multiplier effect in urban core regions results in investment leading to the growth of industry. This leads to rural-urban migration, greater service provision and further investment. ● Rural to urban migration can create large differences in the population make-up of regions with younger migrants moving to core regions, leaving behind an elderly population. ● Changes to government policies have played a significant role in facilitating globalisation. For example, economic liberalisation in India in 1991 expanded the role of foreign direct investment which was seen as crucial in promoting economic growth. ● In China, economic liberalisation begun in 1978 when the government began to relax state controls and open up the country to foreign private investment.	
	AO3 4 marks ● Makes judgement regarding the overall contribution of globalisation to the development of an emerging country. For example, investment from TNC's has boosted GDP but the profits from foreign TNC's often return to developed nations with little overall economic benefit in emerging countries. ● Outsourcing and foreign investment have helped to boost the economy of emerging countries but they have also caused significant environmental damage and the loss of local industries. ● Globalisation benefits some groups more than others. For example, middle class urban residents benefit more than rural agricultural workers therefore widening inequalities. ● Some areas may benefit economically from globalisation whereas others lose out, for instance, the concentration of TNC's in urban areas can lead to increased regional differences between core and periphery areas. For example, whilst globalisation has undeniably boosted the economy of core urban regions such as Lagos, rural periphery areas have not experienced such economic growth, promoting inequalities leading to increased rural-urban migration. ● Globalisation has been important but is not the only factor contributing to the development of emerging countries. Systems of governance, investment in public services and infrastructure as well as minimal corruption also significantly impact the development of countries. ● Overall, globalisation makes a key contribution to the economy of emerging countries in terms of trade and investment and technology but the impact may not be universally positive. ● Other factors such as the quality of governance often determine whether globalisation positively contributes to the economic development of an emerging country.	

Level	Mark	Descriptor
	0	No acceptable response
Level 1	1-3	- Demonstrates isolated elements of understanding of concepts and the interrelationships of places, environments and processes. (AO2) - Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3)
Level 2	4-6	- Demonstrates elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) - Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)
Level 3	7-8	- Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) - Applies understanding to deconstruct information and provides logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout (AO3)

Performance	Marks	Descriptor
SPaG 0	0	<i>No marks awarded</i> - Learners write nothing. - Learner's response does not relate to the question. - Learner's achievement in SPaG does not reach the threshold performance level, for example severe errors in spelling, punctuation and grammar severely hinder meaning.
SPaG 1	1	<i>Threshold performance</i> - Learners spell and punctuate with reasonable accuracy. - Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall. - Learners use a limited range of specialist terms as appropriate.
SpaG 2	2-3	<i>Intermediate performance</i> - Learners spell and punctuate with considerable accuracy. - Learners use rules of grammar with general control of meaning overall. - Learners use a good range of specialist terms as appropriate.
SpaG 3	4	<i>High performance</i> - Learners spell and punctuate with considerable accuracy. - Learners use rules of grammar with effective control of meaning overall. - Learners use a wide range of specialist terms as appropriate.

Challenges of an Urbanising World

Question Number	Indicative Content Define the term de-industrialisation .	Mark
3(a)	Award 1 mark for defining the term de-industrialisation. • Deindustrialisation is the decline of manufacturing industries (1). • Fewer people work in factories (1). • The closure of factories (1). • The loss of jobs in shipbuilding / car manufacturing / steel work / mining (1) (NB credit any applicable industry). • When new technology replaces factory workers (1). NB Do not credit answers which <u>only</u> state why deindustrialisation occurs. For example, 'it's cheaper to make things abroad'. The impact of deindustrialisation, namely factories closing would need to be mentioned in this response. Accept any other appropriate response.	1

Question Number	Indicative Content Explain one reason why traffic congestion is increasing in cities in developing and emerging countries.	Mark
3(b)	Award 1 mark for identifying a reason why traffic congestion is increasing in developing or emerging countries and award a further mark for explanation. • There are more cars on the road (1) as more people can afford them (1). • Rising car ownership (1) as people have more money (1). • Road networks are poorly designed (1) to deal with the increased number of cars on (1). ‘ • Rapid rural to urban migration (1) has resulted in more cars on the roads (1) Accept any other appropriate response.	2

Question Number	Indicative Content Identify the Air Quality Index (AQI) at 8:00 am on 21 October.	Mark
3(c)(i)	C - 300. All other answers are incorrect. At 8am on the 21st October, the air quality index score was 300.	1

Question Number	Indicative Content	Mark
	Calculate the difference between the highest and the lowest Air Quality Index (AQI) shown in Figure 7. Show your working below.	
3(c)(ii)	Award 1 mark for working out selecting the correct values for the range of air quality index scores and a further mark for the correct answer. Working will show: 345 (highest value) - 145 (lowest value) (1) Correct answer is 200 (1). Note: Award 2 marks if no working is shown but the answer is correct.	2

Question Number	Indicative Content	Mark
	Explain one strategy to improve air quality in megacities.	
3(d)	Award one mark for identifying a strategy to improve air quality and a further mark for extension of that point. • Encourage people to use electric cars (1) helps to reduce the amount of harmful gases being released (1). • Improving public transport systems (buses / metros) (1) means fewer cars on the roads (1). • Using public transport (1) means fewer gases are released (1). • Planting trees in urban areas / urban greening (1) promotes the absorption of carbon dioxide / production of oxygen (1). • Charging drivers to enter busy areas / congestion charges (1) resulting in fewer cars on the roads (1). • Building more bike lanes so there are fewer cars on the roads (1) therefore fewer polluting gases are released (1). • Passing environmental laws (1) means factories cannot release as much pollution (1) NB: do not accept 'so there is less pollution' in isolation. The candidate needs to specify why there is less pollution or the fact less harmful gases are being released. Accept any other appropriate response.	2

Question Number	Indicative Content	Mark
	Identify the city where the population is projected to increase by 5.0 million between 2022 and 2050.	
3(e)(i)	A - Khartoum B - Kinshasa is projected to increase by 13.2 million. C - Lagos is projected to increase by 12.7 million. D - Nairobi is projected to increase by 5.2 million. All other answers are incorrect.	1

Question Number	Indicative Content	Mark
	Calculate Cairo's projected % population increase between 2022 and 2050. Answer to one decimal place. Show your working below.	
3(e)(ii)	Award 1 mark for working out of the percentage increase calculation and a further mark for the correct answer. Working will show: $\frac{34.6 - 21.8}{21.8 \text{ (original)}} \times 100$ (1) Correct answer is 58.7% (1). Note: Award a mark for any other methods which show working out which arrive at the correct answer of 58.7 %. Note: Also award two marks if the candidate only gives the correct answer of 58.7% with no working out. All other answers are incorrect.	2

Question Number	Indicative Content	Mark
	Explain two reasons why many people migrate to megacities.	
3(f)	Award one mark for identifying a reason why people migrate to megacities and a further mark for explanation. The responses will often discuss urban pull and rural push factors. • The chance of employment / jobs (1) and to increase incomes (1). • Urban areas are generally safer environments (1) as there is an increased police presence (1) • Educational opportunities (1) to give people the chance of accessing higher paid employment (1). • TNC investment tends to be found in urban areas (1) offering the chance of employment / jobs (1). • Rural areas offer fewer job opportunities (1) with higher paid opportunities in urban areas (1). Accept any other appropriate response.	4

Question Number	Indicative Content	Mark
	Name the South American country with the median % urban population.	
3(g)(i)	Award one mark for identifying the country with the median urban population %. This is Colombia with a figure of 81.4%. - Colombia (1). - Colombia 81.4% (1) Note: Do not award a mark if the candidate only states the correct % population figure of 81.4%. All other answers are incorrect.	1

Question Number	Indicative Content	Mark
	Using Figure 9, calculate the interquartile range of the % urban population of these 11 South American countries. Answer to one decimal place. Show your working below.	
3(g)(ii)	Award 1 mark for the correctly identifying the upper and lower quartile and working out and a further mark for calculating the interquartile range. Working out: (identifying the upper and lower quartile) : 89.3 (Venezuela) - 66.1 (Suriname) (1) Answer : 23.2 (1 mark) Note: Also, award two marks if the candidate only gives the correct answer of 23.2. All other answers are incorrect.	2

Question Number	Indicative Content	Mark
	You have studied a megacity in either a developing or emerging country. Explain two ways this megacity's location has been important for its economic development.	
3(h)	Award one mark for identifying a locational factor important in the development of a named megacity and a further mark for explanation of that factor. • Mumbai is situated on India's west coast (1). This is advantageous for trade with the Middle East / Europe (1). • Mumbai is in close proximity to the Middle East (1) which is advantageous for importing oil (1). • Mumbai's western position offers shipping access to the Suez Canal (1) which has encouraged TNC investment (1). • Situated on the Nigerian coast (1), 80% of Nigeria's imports pass through the docks of Lagos (1). • Being close to Nigeria's oilfields (1) have encouraged thousands of people to migrate to Lagos in search of work (1). • The megacity is located on the coast (1) which makes it easy for imports and exports (1). Note: Take care not to double credit answers, For example: 1) Mumbai is on the coast (1) so it gets more trade (1). 2) Mumbai has a deep port (1) which means more ships can enter it (i.e. it gets more trade which is already given in response 1). Accept any other appropriate response	4

Question Number	You have studied a megacity in either a developing or emerging country. Evaluate the following statement. 'Rapid population growth always results in social and environmental challenges.'	Mark
3(i)	A02 4 marks / A03 4 marks A02 4 marks • Rapid population growth has resulted in housing shortages resulting in people being forced to live in slum housing, often lacking electricity, sanitation and clean water. • Clean water is often not available throughout the day. This results in residents being forced to buy water from water vendors which is expensive. • A shortage of clean water, combined with high population densities, can lead to the rapid spread of disease in informal housing developments. • A lack of adequate sanitation often results in water pollution with water-borne diseases such as typhoid problematic. • Rapid population growth results in a large increase in urban traffic. This increases the concentration of air pollutants and can cause respiratory problems. • Rapid population growth often leads to a shortage of formal employment. This results in people working in the informal sector and not paying tax. Consequently, the government's income is limited which restricts their ability to provide infrastructure and adequate services. • Life expectancies are often considerably lower in squatter settlements. • A shortage of housing results in people constructing properties on land which they do not own. People therefore have no legal rights to the land.	8

- Rapid population growth has led to waste disposal issues in megacities. Landfill sites often emit methane which can result in the spread of fires.
- Rapid population growth has led to serious environmental pollution. Rivers are often contaminated with sewage runoff and air pollution can have severe impacts upon human health, for example the Mithi River in Mumbai.
- Some megacities have begun to address the problems caused by rapid population growth.
- In Mumbai, slum redevelopment has occurred in Dharavi with residents moved out of slum dwellings into more permanent flats which have electricity and running water.
- However, not all Dharavi residents have embraced this development as communities have been split-up, some of the flats are poor standard accommodation and poorer people cannot afford the rent.
- In Lagos, there has been significant investment in the rapid bus transport system where buses use dedicated lanes, resulting in reduced commuter times.
- However, not all the city is covered by the system and high demand for buses has resulted in severe overcrowding at peak times and the long-term sustainability of the system is uncertain without continued public-private partnerships.

A03 4 marks

- Judgements regarding the significance of various social challenges in megacities versus the attempts to alleviate these challenges.
- Judgements regarding the significance of various environmental challenges in megacities versus the attempts to alleviate these challenges.
- Judgements regarding the successes and failures of attempts to manage rapid population growth.
- Evaluative comments regarding the short-term and long-term challenges faced by megacities.
- Evaluative comments that management is extremely difficult given the magnitude of rapid population growth in cities such as Mumbai and Lagos.
- Judgements focussing on the word always. While the challenges faced by megacities are common, they can be alleviated and improved over time.
- Evaluative comments regarding the inevitability of serious social and environmental challenges. Does this always occur or is it possible, through good management for megacity managers, to mitigate these problems?

Level	Mark	Descriptor
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Level 2	4-6	• Demonstrates elements of understanding of concepts and the interrelationship of places, environments and processes. (AO2) • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)

Level 3	7-8	• Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (A02) • Applies understanding to deconstruct information and provides logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (A03)
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